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June 29, 2006

VIA ECFS

Marlene H. Dortch, Esq.
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
ATTN: Video Services Division

Note: Exempt From Filing Fees

Re: **Request for Waiver of July 1, 2006 DTV Replication/Maximization Deadline**
Noncommercial Educational Station WBIQ-DT, Birmingham, AL
Facility ID: 717 / FRN: 0001750314
MB Docket No. 03-15

Dear Ms. Dortch:

On behalf of Alabama Educational Television Commission ("AETC"), licensee of noncommercial educational television station WBIQ-DT, Birmingham, Alabama, and pursuant to the FCC Public Notice in DA 06-1255, *DTV Channel Election Issues – Compliance with the July 1 Replication/Maximization Interference Protection Deadline* (June 14, 2006), we hereby request a waiver of WBIQ(TV/DT)'s July 1, 2006 replication requirements.

In the *Second DTV Periodic Review Report and Order*,[1] the Commission adopted a July 1, 2006 replication/maximization protection deadline for noncommercial DTV licensees. The Commission stated that, in cases where a station was unable to meet the applicable deadline due to "circumstances beyond a station's control," it would "grant extensions of the applicable replication or maximization interference protection deadline on a six-month basis if good cause is shown."[2]

With its November, 2004 Pre-Election Certification, AETC certified that it would operate post-transition "replication" facilities for WBIQ-DT. *See* FCC File No. BCERET-20041102AIC. AETC later filed a First Round Conflict Decision with a technical amendment to

[1] Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television, *Report and Order*, 19 FCC Rcd 18279 (rel. Sept. 7, 2004) ("*Report and Order*").

[2] *Id.*, ¶ 87.

maintain its election of its NTSC Channel 10 for post-transition DTV operation for WBIQ-DT. *See* FCC File No. BFREET-20050815ACO. AETC built-out and licensed its original DTV Channel 53 construction permit for WBIQ-DT in FCC File No. BLEDT-20030430AAV, as granted by the FCC on November 17, 2005.

AETC's current WBIQ-DT operation provides 73% replication of its analog population coverage as calculated by the FCC's replication coverage procedures. *See* attached Engineering Statement in Exhibit 1. Until recently, AETC relied on its own good faith calculations concerning WBIQ-DT's replication status, which led AETC to believe that the built-out and licensed WBIQ-DT facilities exceeded the 80% replication standard. However, as explained below, based on conversations with FCC staff during the past month, AETC now concludes that the replication calculations it previously relied upon do not correspond exactly with those endorsed by the Commission. The results of the Commission-mandated replication calculations indicate that WBIQ-DT's licensed facility only reaches 73% of the station's analog baseline population.

As detailed by the attached Engineering Statement, upon release of the FCC's Table II in December, 2004, AETC's consulting engineers undertook to calculate the replication coverage of WBIQ-DT constructed DTV facility. Using the baseline NTSC population figure from Table II of 1,550,030 persons for WBIQ(TV)'s analog service, and the DTV population receiving at least a 41 dbu signal, the DTV replication was calculated in January, 2005 at 88.1%, easily in excess of the 80% level required by July 1, 2006. Because AETC's engineers had determined that the NTSC facility's population was to be used as the "baseline" (as the smaller figure), the DTV coverage was also calculated at that time using all persons in the NTSC Grade B contour obtaining at least a 41 dbu signal level, rather than within the DTV noise limited contour.

In May, 2006, AETC's consulting engineers undertook to re-confirm the replication status for WBIQ-DT in anticipation of the July 1 deadline and using newly available software updates. At that time, AETC's consultants discovered that the FCC software was not designed to calculate the digital coverage within the station's analog Grade B contour but outside of its DTV noise limited contour. Upon conversations with FCC staff at that time, AETC's engineers were informed that digital replication population studies were instead to be calculated within the DTV noise limited contour, and not within the NTSC Grade B contour. After the calculations were revised in accordance with that guidance, the WBIQ-DT replication was found to fall short of 80%, with the current DTV service reaching 73% (1,132,190 persons) of the baseline analog population coverage.

AETC has been operating WBIQ-DT as licensed since 2003, and at the end of the transition it will return the station's current DTV Channel 53 and make use its NTSC Channel 10 for permanent digital operation. In order to achieve 80% replication on Channel 53, AETC would need to increase WBIQ-DT's current ERP from 31 kW to 56 kW (which would require a corresponding increase in transmitter power output from 5.1 kW to 9.2 kW; *see* Engineering Statement). AETC has explored the technical possibilities of achieving a 25 kW ERP upgrade, and determined that it could be accomplished with the purchase of a 5.5 kW digital solid state

digital transmitter. Based on conversations with manufacturer Harris, AETC has learned that the required digital transmitter, filter, and stage suppressor for such a change would cost $325,000. The expense of pursuing such a modification, as would be necessary to reach approximately 7% more of the Grade B population, would be unaffordable and impractical because it would not only impose a substantial financial burden for a noncommercial educational broadcaster such as AETC, but it also could not be justified by the marginal temporary gain in potential viewership to be achieved.

AETC is licensee of nine (9) full service noncommercial educational TV stations in Alabama: WAIQ(TV), Montgomery; WBIQ(TV), Birmingham; WCIQ(TV), Mt. Cheaha; WDIQ(TV), Dozier; WEIQ(TV), Mobile; WFIQ(TV), Florence; WGIQ(TV), Louisville; WHIQ(TV), Huntsville; and WIIQ(TV), Demopolis. As state-wide public TV network, and a governmental entity, AETC has incurred massive costs to date in successfully converting all nine of its stations to digital operations. AETC has spent a total of $20,574,810 thus far on its network-wide DTV conversion, including $2,053,581 for WBIQ(TV/DT) alone.

At the cost of $325,000 for the new transmitter, an upgraded WBIQ-DT Channel 53 facility would add only 111,834 persons (the remaining 7% of the analog baseline population) to WBIQ-DT's existing coverage. Given AETC's need to eventually give back out-of-core Channel 53 and build a new DTV facility for WBIQ-DT on Channel 10 – at a projected cost of $146,300 – such a substantial additional expense (on top of the WBIQ's to-date and still-to-come DTV conversions costs, as well as those for AETC's other eight stations) simply cannot be addressed within this public broadcaster's existing budgetary constraints. AETC, which does not organize its budget on a transmitter-by-transmitter basis, has a current year engineering budget of $2,691,780 to cover all nine (9) of its full service TV/DT stations and its master control facility. Of that figure, $265,000 accounts for non-recurring, one-time equipment costs and non-routine tower painting expenses. Thus a WBIQ-DT transmitter purchase of $325,000 would amount to more than 13% of a typical year's engineering budget of $2,426,780 for the maintenance and operation of AETC's network-wide, nine-station transmission system. Such an expenditure would invariably impact other AETC departments because in order to find such funds within its budget, AETC would need to explore cutbacks to areas such as production and programming. As a result, a state entity such as AETC cannot justify the added expense of modifying WBIQ-DT on Channel 53 to reach an additional 7% when DTV Channel 53 will need to be replaced shortly by a digital Channel 10 facility for WBIQ.

Moreover, segments of the un-replicated 7% can already receive digital noncommercial educational service and programming from AETC by other means. Notably, portions of the outlying WBIQ service area are served by other DTV stations in AETC's public TV network, including WIIQ-DT in the Tuscaloosa area, WHIQ-DT in the Cullman area, and WCIQ-DT in the Lincoln/Pell City area. *See* attached contour map in Exhibit 2. In addition, WBIQ-DT's Birmingham DMA has 87% cable penetration, further decreasing the area population's reliance on off-the-air reception of DTV.

Coupled with these financial limitations, the circumstances beyond AETC's control, as explained above with respect to the uncertainty surrounding the previous replication calculations

and WBIQ's presumed compliance (until only a few weeks ago) with the July 1 replication requirements, have left AETC without adequate time to otherwise address the remaining 7% of un-met coverage. Nonetheless, AETC intends to fulfill its replication certification upon its use of WBIQ's ultimate in-core DTV channel. AETC therefore submits that good cause exists for a waiver of the July 1, 2006 replication/maximization interference protection deadline as applies to Station WBIQ(TV/DT). Continued protection of WBIQ(TV/DT)'s full replication facilities will serve the public interest by preserving AETC's ability, despite its current financial constraints, to provide its existing NTSC Channel 10 viewers with continued noncommercial educational programming when AETC completes the digital transition for WBIQ by converting its lone in-core channel for digital operation.

AETC is a noncommercial educational broadcaster and operates station WBIQ(TV/DT) on a noncommercial educational basis. Moreover, AETC qualifies as governmental entity. AETC is therefore exempt from filing fees pursuant to Section 1.1114 of the FCC's Rules, and exempt from regulatory fees pursuant to Section 1.1162 of the FCC's Rules. This request is also exempt from the Anti-Drug Abuse Act certification requirements pursuant to Section 1.2002(c) of the Rules.

Should any questions arise concerning this waiver request, kindly contact this office.

Very truly yours,

Barry Pers

Todd D. Gray
Barry S. Persh
Counsel for Alabama Educational
Television Commission

Enclosures

cc: Shaun Maher (at Shaun.Maher@fcc.gov)

EXHIBIT 1

Engineering Statement

ENGINEERING TECHNICAL STATEMENT IN SUPPORT OF A REQUEST FOR WAIVER OF THE JULY 1, 2006 USE-IT-OR-LOSE-IT REPLICATION AND MAXIMIZATION DEADLINE

Prepared for
ALABAMA EDUCATIONAL TELEVISION COMMISSION
WBIQ-DT CHANNEL 53
BIRMINGHAM, ALABAMA

Engineering technical statement prepared by William T. Godfrey, Jr. of the firm Kessler and Gehman Associates, Inc. (KGA), Telecommunications Consulting Engineers in connection with a request for waiver of the July 1, 2006 "use-it-or-lose-it" replication and maximization deadline for the licensed WBIQ-DT Channel 53 facility (BLEDT-20030430AAV).

Background

On August 4, 2004 the FCC adopted replication and maximization "use-it-or-lose-it" deadlines defined in a Report and Order in the FCC's "Second Periodic Review of the Commission's Policies Affecting the Conversion to Digital Television" released on September 7, 2004. Soon after, the Alabama Education Television Commission (AETC) retained KGA's services to determine if its digital broadcast facility would meet the 80% use-it-or-lose-it coverage requirement. On November 11, 2004, KGA completed the studies and e-mailed them to the APT Director of Engineering (DOE). The replication percentage reported to APT for the licensed WBIQ-DT facility was only 69.5%, which was calculated using Probe 2 signal propagation software by V-Soft (Exhibit 13 and 14 from e-mail). The calculations were performed using the population within the licensed WBIQ-DT noise limited contour (NLC) using a baseline population of 1,660,998 persons calculated from Probe 2 (Exhibit 1 and 2 from e-mail).

On December 21, 2004 the FCC released "Table II of the 1998 Station NTSC and DTV Replication Information." Table II depicts the NTSC and DTV baseline populations to be used in the "use-it-or-lose-it" calculations. Since KGA determined the baseline population for WBIQ-

DT, it realized that the studies would have to be recalculated using the population depicted in Table II. As previously stated, KGA calculated a baseline population of 1,660,998 persons; however, Table II depicts a 1,550,030 person NTSC baseline population and a 1,663,364 person DTV baseline population. Since KGA used Probe 2 software on a PC and the Commission uses its own software on a SunSparc computer, it realized that the baseline populations would not be the same. Table II depicts the NTSC and DTV baseline populations and, at the time, KGA was not sure which one to use. Accordingly, KGA contacted the FCC via telephone and was informed that the lesser of the two populations should be used. In addition, KGA was also informed that if the lesser of the two baseline populations is from the NTSC facility, then the 80% studies should be calculated within the NTSC Grade B contour instead of the DTV NLC. Therefore, KGA recalculated the replication percentage based on the NTSC baseline population depicted in Table II (1,550,030 persons) and the population served within the NTSC Grade B contour of the licensed WBIQ-TV facility.

Table II was released on December 21, 2004 and KGA prepared new studies immediately after the Christmas and New Year holidays. On January 7, 2005, KGA e-mailed updated studies, based on FCC guidance, for the WBIQ-DT facility. Those studies concluded that the replication percentage for the licensed WBIQ-DT facility was 88.1% of the licensed WBIQ-TV NTSC population using the NTSC baseline population 1,550,030 persons depicted in Table II (Exhibits A and B from e-mail). KGA explained that the initial studies, performed prior to release of Table II, were calculated using the standard method based on population served within the WBIQ-DT NLC. The 2005 studies, performed after release of Table II, were calculated based on the population served within the station's NTSC Grade B contour as directed by the FCC.

Thus, based on KGA's studies following the release of Table II in December of 2004, APT was informed that the WBIQ-DT licensed operation on Channel 53 satisfied the FCC's 80% replication requirement, and that no additional construction on Channel 53 would be necessary. It was (and still is) APT's intention, when it shifts to its ultimate in-core DTV channel 10 at the end of transition, to satisfy its full "replication" certification.

Basis for Waiver

The 2nd Periodic Review states that the FCC is adopting a waiver process for stations that truly cannot afford to build the minimum required facilities to meet the "use-it-or-lose-it" coverage requirement, or that cannot build out for other reasons beyond their control. APT was allotted an out-of-core digital channel with an ERP of 1,000 kW. The costly high-powered station would only be a temporary facility since out-of-core licensees are required to clear the lower 700 MHz band. WBIQ-DT is one of nine noncommercial educational stations licensed to APT and the cost to build a 1,000 kW digital out-of-core facility for temporary operation and then build another digital facility for the same station in the core channel group is not in the budget, especially since APT is also responsible for raising funds to build eight other digital facilities. Also, the cost to increase the ERP from 31 kW to 56 kW, which is required to meet the 80% requirement, exceeds APT's resources. The existing 5 kW solid state digital transmitter for the WBIQ-DT facility is operating at maximum power. It was determined that the required transmitter output power must be 9.2 kW in order to operate with an ERP of 56 kW. Therefore, APT would have to spend approximately $352,000.00 to increase the ERP by 25 kW in order to increase the replication coverage from the existing 72.8% (1,132,190 persons) to 80% (1,244,024 persons). APT truly cannot afford to build the minimum required facilities to meet the use-it-or-lose-it coverage requirement and therefore respectfully requests a waiver of the July 1, 2006 minimum coverage requirement so that it can carry over 100% of its allotted protected coverage area to its in-core post-transition digital facility.

The FCC also stated that a waiver would be available for a station that could not build out for reasons beyond its control. As previously stated, APT received updated studies and a report from its consulting engineer (KGA) in January 2005 stating, based on a telephone conversation with the FCC, that the licensed WBIQ-DT facility would meet the July 1, 2006 minimum coverage requirement and that the facility would not need to increase its ERP. KGA was using Probe 2 signal propagation software when it ran the studies in November 2004 and January 2005. Since then, KGA has made significant upgrades and now uses the exact same software as the

FCC and uses the same make/model Sun Sparc computers as the FCC. Accordingly, KGA calculations are now exactly the same as the FCC's. As recommended by its attorneys, APT retained the services of its consulting engineer last month to update the "use-it-or-lose-it" studies to verify that the WBIQ-DT facility would still meet the 80% minimum coverage requirement. KGA prepared the studies and recognized that the FCC software was not set-up to calculate the digital coverage within the analog Grade B contour. Therefore, KGA contacted the FCC to determine how the Commission was setting up its studies. At that time, the Commission stated that the studies should be calculated within the digital NLC and that it does not calculate population within the Grade B contour for the "use-it-or-lose-it" studies. In that conversation, KGA reminded the Commission that it received guidance in December 2004 stating that there are no published guidelines for calculating the "use-it-or-lose-it" studies and that the population within the analog Grade B contour should be used if the lesser population in Table II is from the NTSC facility. The response from the Commission was that APT should file a waiver.

Certification

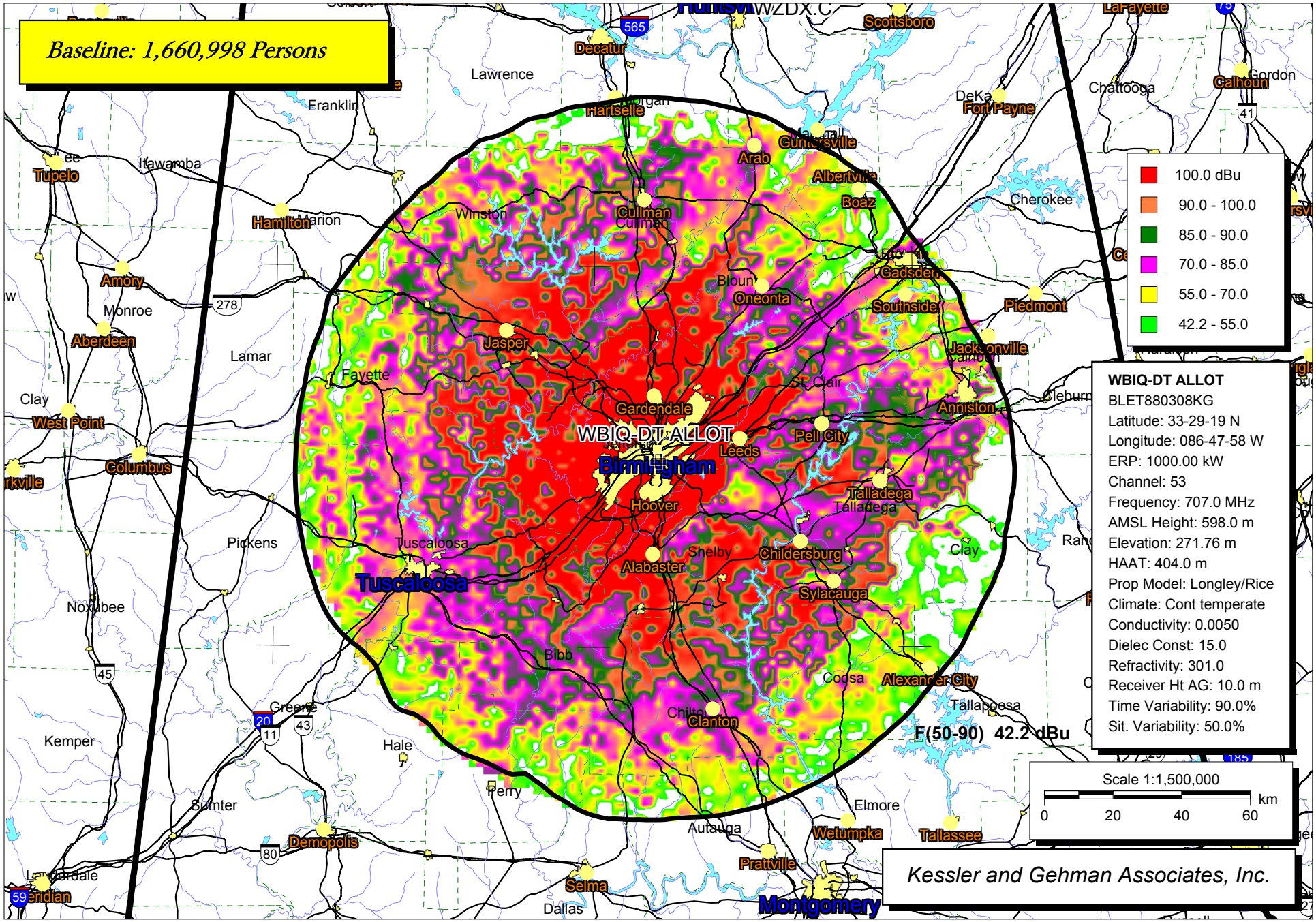
This technical statement was prepared by William T. Godfrey, Jr., Telecommunications Technical Consultant with Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida and has been working in the field of radio and television broadcast consulting since 1998. He graduated from the University of North Florida with a Bachelor of Arts degree in Criminal Justice and a minor in Mathematics in 1993. As a Professional in the field of Telecommunications he states under penalty of perjury that the information contained in this report is true and correct to the best of his knowledge and belief.

KGA

KESSLER AND GEHMAN ASSOCIATES, INC.

William T. Godfrey, Jr.
Telecommunications Technical Consultant

June 22, 2006



WBIQ-DT CH 53 ALLOTMENT BASELINE POPULATION FOR 80% COVERAGE DETERMINATION (US CENSUS 2000 DATA) EXHIBIT 1

Kessler and Gehman Associates, Inc. Population Report

WBIQ-DT ALLOT (53) BIRMINGHAM, AL - BLET880308KG
TV Incoming Interference Study
Signal Resolution: 2 km
Consider NTSC Taboo: Yes
# of radials computed for contours: 36
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 1.0 km
Interference considered within the reference station's noise limited contour.
Using NTSC lptv/translators D/U rules.
Threshold for reception: 42.211

Study Date: 11/10/2004
TV Database Date: 11-10-04

Population Database: 2000 US Census (SF1,Housing)

Percentages calculated using a baseline population of 1,673,576.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
WFLITV (53Z)	4807	11614	0.694	304.79
WHBQ-D.C (53)	432	1062	0.063	56.63
WPAN (53Z)	170	356	0.021	78.06
WZDX.C (54Z)	103	254	0.015	4.03

Masking Summary:

	Total Interference		Unique Interference	
Call Letters	Population	%	Population	%
WFLITV (53Z)	11614	0.694	11160	0.667
WHBQ-D.C (53)	1062	0.063	464	0.028
WPAN (53Z)	356	0.021	246	0.015
WZDX.C (54Z)	254	0.015	0	0.000

Stations considered which do not cause interference:

WKGBTV (53-)
WVTM-D.C (52)

Call Letters	City	State	Dist	Bear
WFLITV (53Z)	Cleveland	TN	232.2	45.9
WHBQ-D.C (53)	Memphis	TN	336.9	304.6
WKGBTV (53-)	Bowling Green	KY	399.7	2.1
WPAN (53Z)	Fort Walton Beach	FL	342.6	183.1
WVTM-D.C (52)	Birmingham	AL	0.3	50.1
WZDX.C (54Z)	Huntsville	AL	140.6	10.0

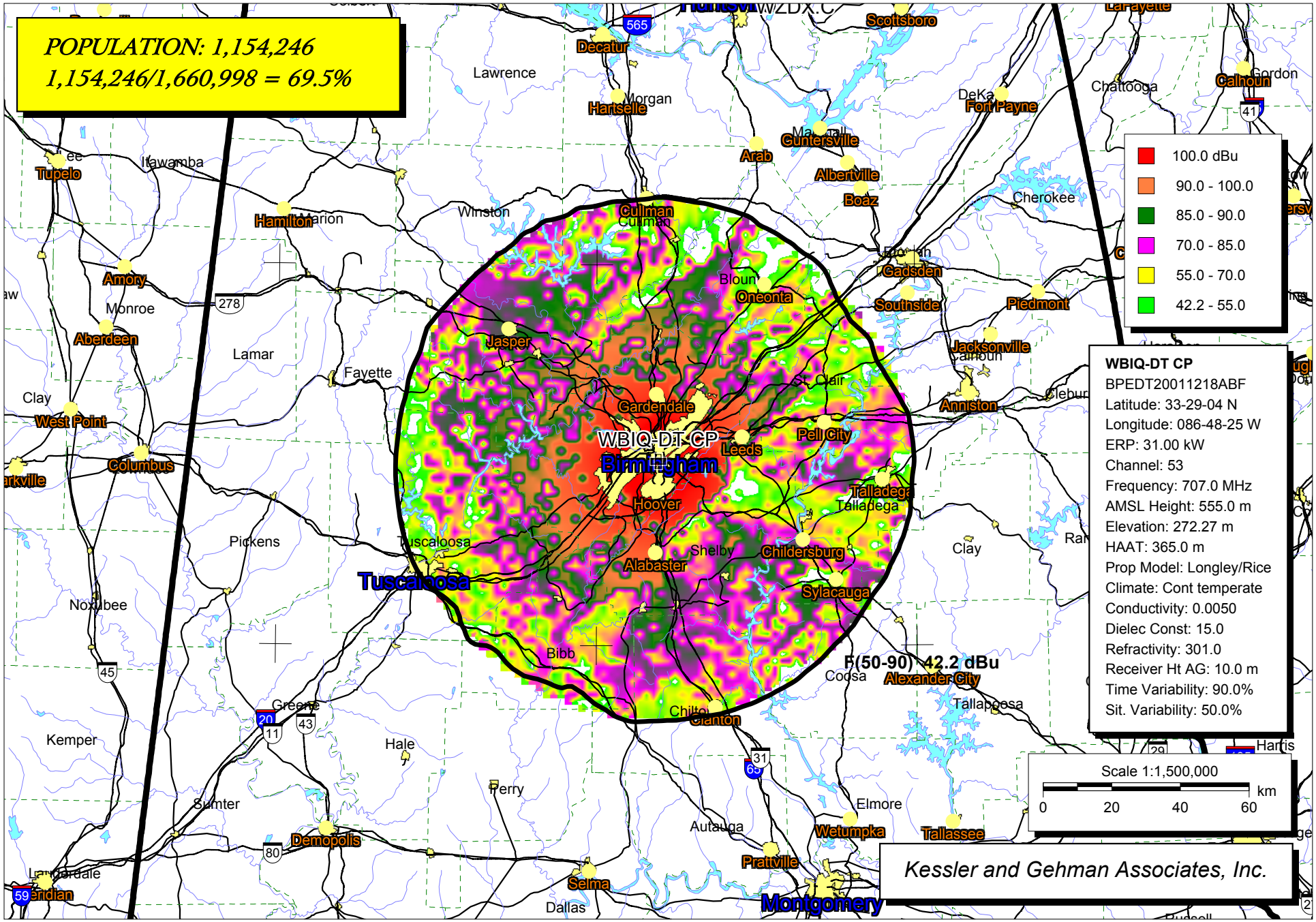
Totals for WBIQ-DT ALLOT (53)

Calculation Area Population: 1,711,343 (33906.8 sq. km)
Not Affected by Terrain Loss: 1,673,576 (32233.7 sq. km)

Total NTSC Interference:	12,114	(	378.7 sq. km)
DTV Only Interference:	464	(	36.5 sq. km)
Total DTV Interference:	1,062	(	56.6 sq. km)
Interfered Population:	12,578	(	415.1 sq. km)
Interference Free:	**1,660,998**	**(**	**31818.5 sq. km)**

Percent Interference:	0.75

Terrain Blocked Population:	37,767	(	1673.2 sq. km)
Contour Area Population:	1,713,470		



WBIQ-DT CH 53 (CP) POPULATION FOR 80% COVERAGE DETERMINATION (US CENSUS 2000 DATA)

EXHIBIT 13

Kessler and Gehman Associates, Inc. Population Report

WBIQ-DT CP (53) Birmingham, AL - BPEDT20011218ABF
TV Incoming Interference Study
Signal Resolution: 2 km
Consider NTSC Taboo: Yes
# of radials computed for contours: 36
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 1.0 km
Interference considered within the reference station's noise limited contour.
Using NTSC lptv/translators D/U rules.
Threshold for reception: 42.211

Study Date: 11/10/2004
TV Database Date: 11-10-04

Population Database: 2000 US Census (SF1,Housing)

Percentages calculated using a baseline population of 1,206,341.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
WFLITV (53Z)	4775	11269	0.934	215.21
WHBQ-D.C (53)	178	425	0.035	28.45
WPAN (53Z)	28	62	0.005	8.20
WVTM-D.C (52)	17779	40349	3.345	920.55

Masking Summary:

	Total Interference		Unique Interference	
Call Letters	Population	%	Population	%
WFLITV (53Z)	11269	0.934	11259	0.933
WHBQ-D.C (53)	425	0.035	425	0.035
WPAN (53Z)	62	0.005	62	0.005
WVTM-D.C (52)	40349	3.345	40339	3.344

Stations considered which do not cause interference:

WZDX.C (54Z)

Call Letters	City	State	Dist	Bear
WFLITV (53Z)	Cleveland	TN	233.0	45.9
WHBQ-D.C (53)	Memphis	TN	336.6	304.7
WPAN (53Z)	Fort Walton Beach	FL	342.1	183.0
WVTM-D.C (52)	Birmingham	AL	1.2	54.6
WZDX.C (54Z)	Huntsville	AL	141.2	10.2

Totals for WBIQ-DT CP (53)

Calculation Area Population:	1,225,219	(17722.2	sq. km)
Not Affected by Terrain Loss:	1,206,341	(17193.6	sq. km)
Total NTSC Interference:	11,331	(223.4	sq. km)
DTV Only Interference:	40,764	(944.9	sq. km)

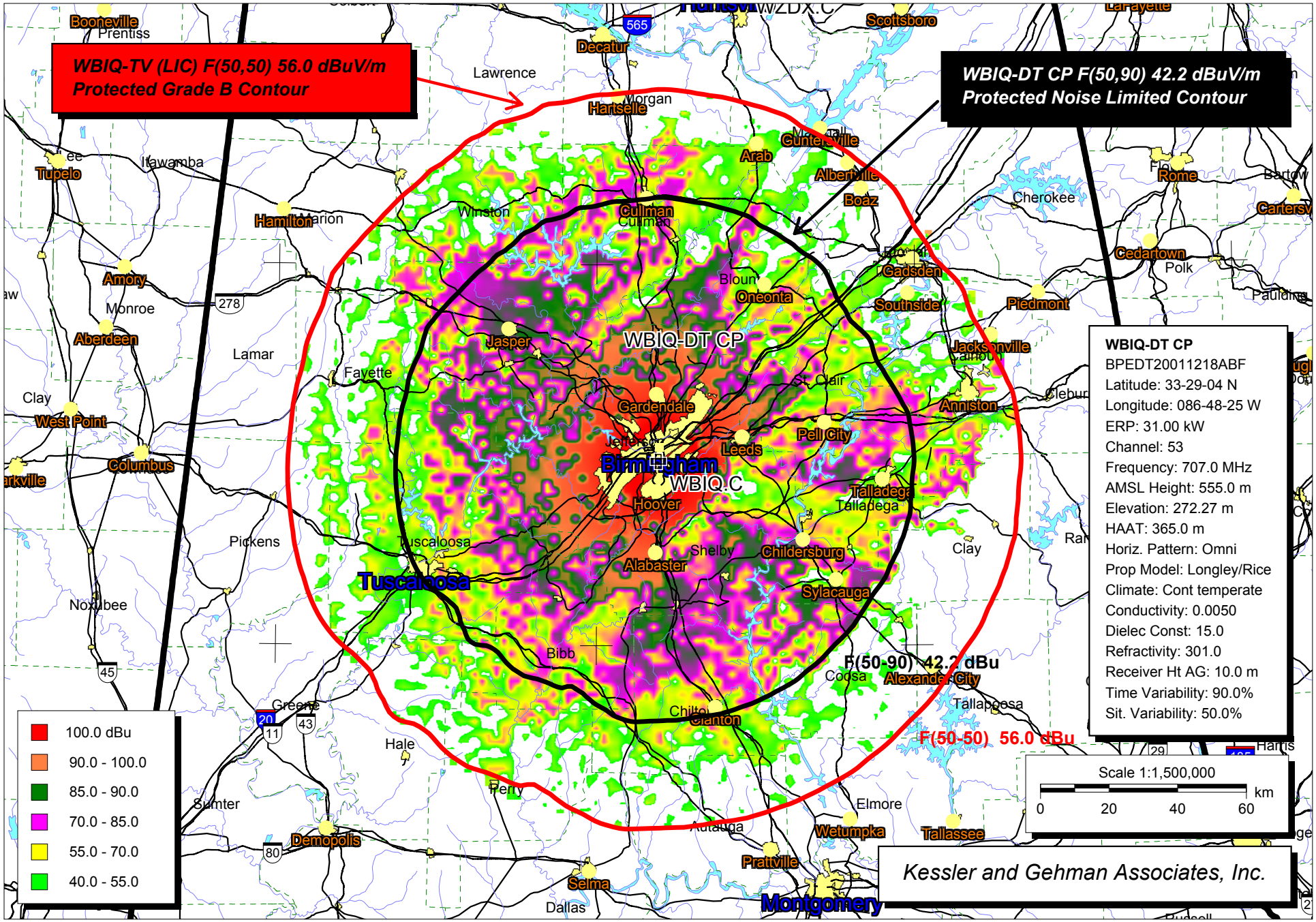

WBIQ-TV (LIC) F(50,50) 56.0 dBuV/m
Protected Grade B Contour
WBIQ-DT CP F(50,90) 42.2 dBuV/m
Protected Noise Limited Contour
WBIQ-DT CP
WBIQ.C
WBIQ-DT CP
BPEDT20011218ABF
Latitude: 33-29-04 N
Longitude: 086-48-25 W
ERP: 31.00 kW
Channel: 53
Frequency: 707.0 MHz
AMSL Height: 555.0 m
Elevation: 272.27 m
HAAT: 365.0 m
Horiz. Pattern: Omni
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Time Variability: 90.0%
Sit. Variability: 50.0%
F(50-90) 42.2 dBu
F(50-50) 56.0 dBu
100.0 dBu
90.0 - 100.0
85.0 - 90.0
70.0 - 85.0
55.0 - 70.0
40.0 - 55.0
Scale 1:1,500,000
0 20 40 60 km
Kessler and Gehman Associates, Inc.

Exhibit A

Kessler and Gehman Associates, Inc. Population Report

WBIQ-DT CP (53) Birmingham, AL - BPEDT20011218ABF
TV Incoming Interference Study
Signal Resolution: 2 km
Consider NTSC Taboo: Yes
# of radials computed for contours: 36
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 1.0 km
Interference considered within the reference station's NTSC counterpart's noise limite
Using NTSC lptv/translators D/U rules.
Threshold for reception: 42.211

Study Date: 1/7/2005
TV Database Date: 01-04-05
Population Database: 2000 US Census (SF1,Housing)

Totals for WBIQ-D.C (53)

Calculation Area Population:	1,760,769	(35520.9	sq. km)
Not Affected by Terrain Loss:	1,492,176	(26879.3	sq. km)
Total NTSC Interference:	37,485	(976.2	sq. km)
DTV Only Interference:	84,495	(2030.8	sq. km)
Total DTV Interference:	100,325	(2278.5	sq. km)
Interfered Population:	121,980	(3007.0	sq. km)
Interference Free:	1,370,196	(23872.3	sq. km)

Terrain Blocked Population:	268,593	(8641.5 sq. km)
Contour Area Population:	1,762,280	

Exhibit B

EXHIBIT 2

Alabama Educational Television Commission Network DTV Coverage